

From ab4el.com Thu Sep 1 12:03:34 1994
From: "Kevin Anderson" <GGANDERSON@Augustana.edu>
Subject: Re: A QRP+/QRO- rig (was Simple rigs)

Jeff and Jim's posts are pointing out a void I feel, and illustrates the severity of a loss Heath's demise was. There are not kits in the 5 - 50 watt range as there was years ago. I know it's not QRP, but it would more adequate at starting people, resists the \$1,000-2,000 appliance operator mode, and wouldn't take people too far afield from QRP such that they couldn't join us in spirit. This a void the Ten Tec Scout fills, but I know I couldn't afford a Scout right now (and I'm not a student, but a teacher of students). I have my solution already, a used Heath HW-16, but what about the modern kit builders? It's just adding higher power PA's on a stable circuit, right? How much more expensive can that be? Wondering.... 73 de Kevin, KB9IUA

> >I was thinking about this concept of a simple rig. I have talked recently
> >to 2 young hams who are in high school on 2 meters. They both passed
> >their code tests for Novice and one passed the code test for General. The
> >limiting factor here is the cost of a HF rig. Even the cost of a used rig
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> >power amp that puts out 5 watts or a small linear that pumps out 20+
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> >
> >Jeff
> >AB6MB
> >jeffj@crl.com
> >

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> would just find the relative difficulty of making and sustaining contacts
> frustrating, and would lose interest. For that reason, when I meet youngsters
> in the hobby I always show them my qrp gear, but I also show them a qro
> station, and recommend that they start out with second-hand gear that runs
> around 100 watts. \$300 spent wisely through rec.radio.swap will kit you out
> nicely.

> >
> 72!

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> --
> If RST > 519                               Jim Speer, K5YUT
>     Then cut_power;                         f_speerjr@titan.sfasu.edu
>
```

```
> * * * * *
Kevin L. Anderson,      Geography Dept.,      Augustana College
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* * * * *
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From ab4el.com Thu Sep 1 01:25:04 1994
From: ab4el (Stephen Modena)
Subject: FTPing to Think.COM

Briefly, on FTP access to Think.COM:

```
>ftp think.com

>login(...): anonymous

>password: <type your internet address here>

>cd /pub/radio/ham/qrp/archives  (<== Unix slashes, not DOS slashes)

>ls      (<== to get directory listing)

>binary  (<== CRITICAL!  CRITICAL!)

>get qrp.1993-04-24.Z      (<== retrieves the first compresses archive)

>mget qrp.1994*.Z      (<== retrieves *all* 1994 archives...careful!)

>bye      (breaks the connection)

>uncompress qrp.1993-04-24      (<== qrp*.Z uncompressed to ascii qrp.*)
```

Now you are ready to download via ZModem or Kermit or whatever, the
uncompressed ascii set of emails that were sent to Think.com up to
Apr 24, 1993.

73/Steve

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--
Steve Modena  AB4EL      **   National Radio Examiners--Test Center Manager
ab4el@Cybernetics.NET  **   We offer periodic Commercial Radio Operator
                        **   license examinations in the RTP, NC area.
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From ab4el.com Thu Sep 1 14:22:48 1994

From: ryme@wpsmtp.bloomu.edu
Subject: INET Rig Vote Results

Hello,

Because of the mailing list server changeover, I waited an extra day to post the results of the questionnaire. I hope everyone had an opportunity to offer a vote and comments.

Thanks to those who participated. Your good ideas and your help is appreciated.

Voting Results of the INET Rig Questionnaire

1	Vote Count	Topic
1		Should we copy an "older Production" design?
0		Should we modify an "older production" design?
17		Should we design using modern techniques?
8		Should the design be simple and uncomplicated?
9		Should the design be complex with added features?

MODE

6	CW
1	SSB
13	CW/SSB
5	other (digital/RTTY)

BANDS

16	HF
10	VHF
3	UHF
3	Combo

The poll showed strong support for CW/SSB radio incorporating new technology. (MODE both -13/new tech 17) CW takes second while RTTY and/or digital modes hold third. (CW-6/RTTY*Digital-5)

The numbers favor the HF band, with VHF a very close second place. (HF-16/VHF-10)

As the design scheme unfolds, we need to decide the simple/uncomplicated vs more complex/added features question (8 vs 9).

So, here we go with the next step.

73, and thanks.

John N3PFF

.....
Here is the next questionnaire:

BANDS

(Please rank the bands according to preference. 1-high/10-low)

-- 160m
-- 80m
-- 40m
-- 20m
-- 15m
-- 10m
-- WARC
-- 6m
-- 2m
-- 220 and up

Design Questions

-- Should we use a single board design?
-- Should we use modular construction?
-- Should we use plug-in modules?
-- Should we base the design around the R2/T2 modules?
-- Should we design a single band rig?
-- Should we design a multiband rig?
-- Should we include outboard computer CW\RTTY encode/decode?
-- Should we include outboard computer frequency control?
-- Should we include LCD display?
-- RF output power? (in watts)
-- VFO range?
-- RIT?
-- QSK?
-- AGC? (type?)

Comments:

From ab4el.com Thu Sep 1 04:13:28 1994
From: RicTell@aol.com
Subject: QRP Philosophy & Other Things

Some observations from a newcomer to this group.
I'm Ric, K5UJU, originally from Texas, last 18 years in Vegas.

I have been monitoring the QRP group goings-on for a few weeks now but have

never joined in the actual discussions. Thought I would give it a shot.

I've been licensed for 35 years now but have been inactive for quite a while being immersed too much in my business. Hankering to get back into things for some time, I thought it would be fun to dabble with QRP (my very first rig was, afterall, a home brew two tuber with link coupling to the antenna built in a wooden cabinet, running a big 7 watts!). So I have some fond memories of making lots of contacts over long distances with low power.

Also, being stranded in one of these neighborhoods that don't allow antennas tends to put a cramp on operating also, but QRP operation would significantly reduce the likelihood of local TVI to the neighbors and, hence, seems like a reasonable and fun approach.

Comment #1: It would be helpful to folks like myself to have some form of fact sheet that laid out some basics for those that have not been thinking, dreaming and totally consumed by QRP operations, as must be the case for apparently most of the respondees to this list. You know, sources of QRP oriented publications, basic calling frequencies commonly used with QRP operation, etc.

Comment #2: As I have thought about the underlying motivations of operating QRP, I am struck by the common statement made in various articles related to running low or very low power that "one should use the best antenna possible", like a high gain directive beam. This is a rather obvious conclusion that one would come to if you are trying to create the highest field strength signal but with low power. And, naturally, probably most hams would love to ram a watt or five into a nice yagi lofting about up 70 feet above the shack. But in a way this seems sort of ludicrous; what was the purpose of operating QRP in the first place? It was to challenge oneself in making successful QSOs via very low power. If I run 10 watts to a 10 dBd gain beam, then my ERP is still 100 watts; the same as if I were running 100 watts to a dipole oriented in the right direction. So it seems to me that what QRP operation is really about is low ERP, not necessarily low transmitter output power. Does any of this make sense?

Comment #3: Based on the extensive discussions on this list of alternative wire antennas and tunners, I get the feeling that a lot of folks out there have a similar sense. After all, if QRP is tantamount to simplicity (this is of course an open question as I have noted reading the mail of this group), then having a palm sized transceiver that you made yourself and runs a few watts or less down in the shack but installing a humongous antenna system, as nice as it might be, seems inconsistent and contrary to the underlying philosophy. Any takers?

Thanks for the opportunity to offer my 2 cents worth.

...Ric Tell

Internet: rictell@aol.com

From ab4el.com Thu Sep 1 02:54:58 1994

From: JEVERHART@cayman.vf.ge.com

Subject: Re: Random Wire Tuner, etc.

OK! I'll take a deep breath and reply to a several things from the thread. BTW, I'm extremely impressed by the friendly manner that the threads flow here in the QRP list. It's a pleasure to participate. Sometimes I want to say no-no-no, but somebody else has already gently corrected some misinformation. Great job guys!

Here we go:

Bruce Robertson wrote:

> Joe, thanks for your post to the qrp group about your experiences with
> harmonic out of band operation as a novice. As a young 'un who has
> read '200 meters and down' many times, I understood most except the
> reference to '00 notices' from other hams. What were/are those?

Aw shucks, Bruce you make me feel almost as old as the new women engineers at work who call me SIR!

The 00's were Official Observers appointed by the ARRL to assist with amateur radio self policing. They monitored ham operating activities and tactfully contacted those who they felt may be violating FCC rules about the infractions. They usually wrote postcards urging those who were potential violators recommending that they correct the deficiencies noted. As a group, they were very courteous and often suggested ways of solving the problem. The principle was that it was much better to hear from an 00 than the FCC. These days I guess the 00's have disbanded and you won't hear from the FCC unless you are a life-threatening danger.....

R. D. Keys wrote:

> Older rigs of commercial manufacture almost always had the bandswitch
> or band markings somewhere on the pi-network tanks so that the
> mistuning should not be a problem. OLD OLD pre-1950 commercial
> designs may or may not have such markings. Some very inexpensive
> commercial novice rigs of the 50's and 60's may or may not have such
> markings.

Well, yeah, R. D., but even the ones that had marked bandswitches and other markings were capable of very wide range tuning. That is the very feature that allowed them to tune up into antennas with random impedances. The cheaper rigs that WOULDN'T tune into anything from a paperclip to a suspension bridge were the ones that didn't allow you to tune to a harmonic. As you also pointed out, this problem went away with the advent of "no-tune" riceboxes. (And made a great deal on those who make so-called antenna tuners -- but that's another story.)

And

> Most home built rigs will easily tune to the second harmonic with a
> fundamental coil, so care does need to be taken with homebrew rigs
> and pi-net plate tanks or standard plate tank circuits (usually link
> coupled). But, on all homebrew rigs (unless clearly marked and
> properly designed kits that won't 2nd harmonic you to pieces), take
> care to use a good digital frequency meter (good for picking up the
> output frequency of the antenna) AND a good tuned field strength
> meter (or tuned monitor --- all hams use monitors with older gear,
> right ----- ??????).

Again, I agree more than disagree, this is generally good advice. the "belt and suspenders" approach of using a digital counter AND a tuned field strength meter ASSURES that you know what you are viewing. Frequency counters can lie to you (like their insidious brothers, digital scopes.) They (usually) display the frequency of the largest waveform they are fed. Lower level spurious signals can be masked out. For example, a triangle wave will read its fundamental on a counter but have significant even harmonics and a square wave will read "right" even though it has large odd-numbered harmonics present. Counters are great for reading your operating frequency, but you've gotta be sure that nothing else is there. As R. D. and others have stated, this is almost a non-issue with modern commercial rigs.

Thanks for the discussion.

Joe E., N2CX

From ab4el.com Thu Sep 1 04:02:19 1994
From: stark <mswmod@sage.unr.edu>
Subject: Re:Random Wire Tuner,etc

I like that idea Alan, there are lots of rigs out there but most of us could use some little black box to do some mystic chore.

Geeeeesh, so many things to do and so little time to do them.....

73's, Ron

.....KU7Y.....
.....Monte "Ron" Stark.....
.....Sun Valley, Nevada.....

From ab4el.com Thu Sep 1 07:21:08 1994
From: jeffrey@math.hawaii.edu
Subject: Re: Simple Rigs

Did I hear someone say 'simple rigs' again?

Since most newcomers to the hobby already have a SW receiver we'll keep the projects simple by just building transmitters.

Subject: Project 2 - 20 meter QRP CW xmtr

Here's the second QRP project taken from 101 EASY HAM RADIO PROJECTS, by Robert Brown and Tom Kneitel; again, since the book is out of print, I assume there will be no copyright problems...

This project is a simple 20 meter CW xmtr with output about 100 mw (?). Here are the authors' comments:

"If you have always wanted to try low-power on 20 meters, here is an excellent method for joining the growing ranks of flea-power addicts - and doing it inexpensively. This circuit is capable of world-wide QSO's, given the right conditions and assuming QRM is not present.

"The transmitter uses a pair of GE-1 universal replacement transistors in a unique circuit configuration a great more sophisticated than you would normally expect for an under-one-watt rig. Crystal can be a fundamental 14-mHz type.

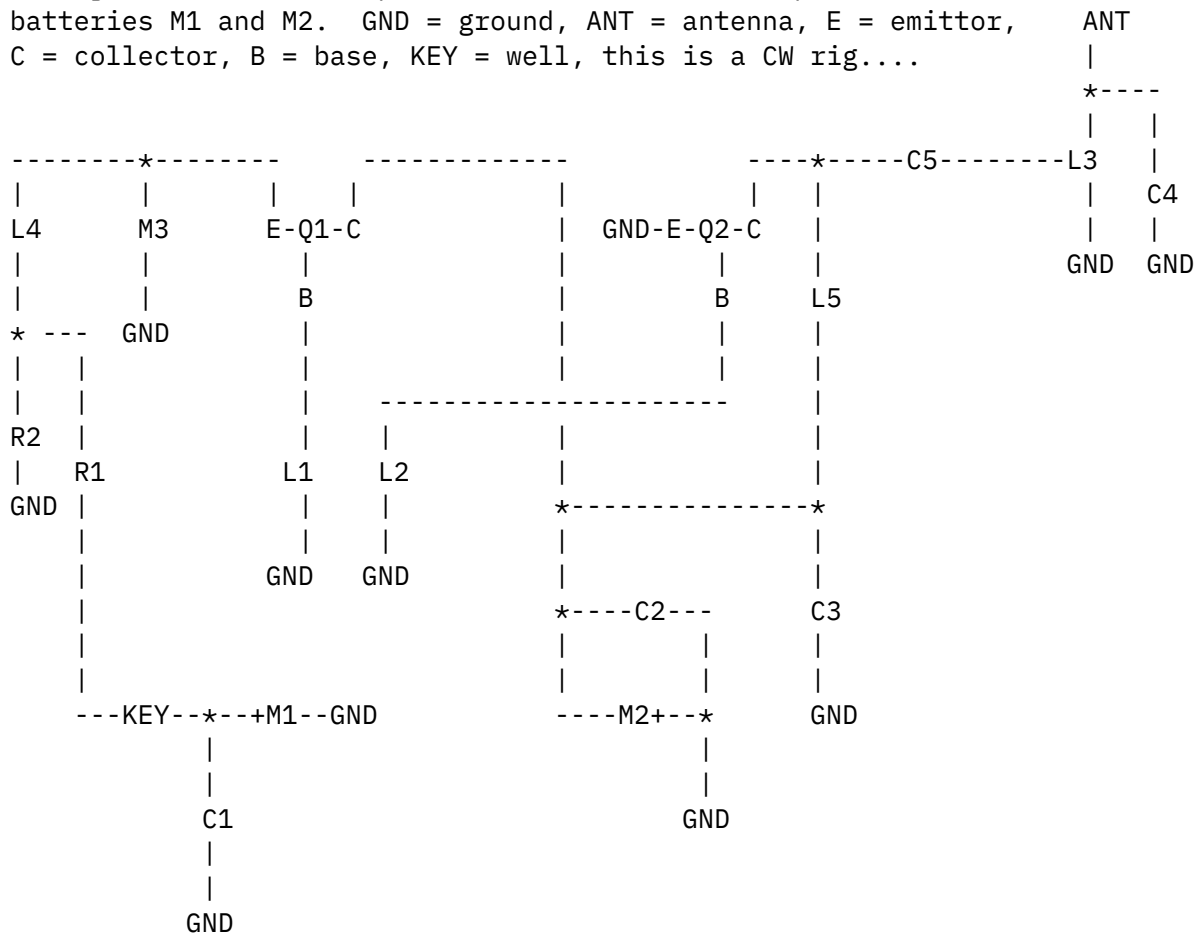
"L1 should be adjusted for sure-fire oscillation every time the key is depressed. C4 is simply adjusted for maximum output on the FSM."

PARTS LIST:

C1, C2	.02 uF capacitors
C3, C5	.002 uF capacitors
C4	51 pF variable capacitor
L1	38 turns of No. 22 enameled wire on a 1/2 in. diameter slug-tuned form
L2	8 turns of No. 22 enameled wire wound over cold end of L1

L3 Coil, 17 turns of Air Dux 616T (or equiv.) tapped 5 1/2
 turns from cold end
 L4, L5 2.5 mH rf choke (National R-100 or equiv.)
 M1 1.5 volt dry cell
 M2 6 volt battery
 M3 14 mHz crystal
 Q1, Q2 GE-1 transistors
 R1 180 ohm resistor
 R2 1.1 megohm resistor

As before, rather than trying to 'draw' the symbol for each component,
 I've just inserted the part number. Oh, note the polarities of the
 batteries M1 and M2. GND = ground, ANT = antenna, E = emitter,
 C = collector, B = base, KEY = well, this is a CW rig....



Note that the collector of Q1 'jumps' over the hot end of L2; this is
 the only jump. * = a junction of 3 or more leads.

..... - - - - - !

Jeff, NH6IL

Jeffrey Herman, University of Hawaii Mathematics, jherman@Hawaii.Edu

From ab4el.com Thu Sep 1 02:55:07 1994
From: Jeff Jones <jeffj@crl.com>
Subject: Simple rigs

I was thinking about this concept of a simple rig. I have talked recently to 2 young hams who are in high school on 2 meters. They both passed their code tests for Novice and one passed the code test for General. The limiting factor here is the cost of a HF rig. Even the cost of a used rig like my Atlas 210X that I bought for \$150 is beyond their means. They were very interested when I said that with low power rigs they could work the world. I also told them they could build the rigs fairly cheaply. So should we design a simple rig that a high school student could build cheaply? How about a simple transceiver that puts out 1 watt and then a power amp that puts out 5 watts or a small linear that pumps out 20+ watts that they could hook up to it? Just some more to chew on...

Jeff
AB6MB
jeffj@crl.com

From ab4el.com Thu Sep 1 11:25:51 1994
From: F_SPEERJR@TITAN.SFASU.EDU
Subject: Re: Simple rigs

>I was thinking about this concept of a simple rig. I have talked recently
>to 2 young hams who are in high school on 2 meters. They both passed
>their code tests for Novice and one passed the code test for General. The
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>AB6MB
>jeffj@crl.com

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72!

--

If RST > 519
Then cut_power;

Jim Speer, K5YUT
f_speerjr@titan.sfasu.edu

From ab4el.com Thu Sep 1 04:41:30 1994

From: Adrian Weiss W0RSP English Department <AWEISS@charlie.usd.edu>

Subject: Re: THE LED feedline current pickup

Jeff:

A neon bulb responds to the line voltage, not the current, when you touch the tip to a lead; or in adequately strong fields, you only have to bring the bulb envelope close to the line to get a glow. The neon bulb indicates the vector sum of incident and reflected voltage waves. Again, changing the measurement point influences the intensity of the glow and reflects the standing wave distribution on the line. Yes, you tune for maximum intensity. As with the current pickup, it cannot be used to compare two antennas since it gives only a relative indication of intensity for different tuning settings but no other changes to the system. For example, if you added a bunch of feedline and got a higher indication, that would not indicate that you have more current flowing and hence greater radiated power. The extra feedline simply moved your measurement point closer to a voltage or current maximum on the standing wave, dependin on which device you're using.

73, Ade

From ab4el.com Thu Sep 1 13:44:23 1994

From: Gary M Diana <gmd@adm01.rfc.comm.harris.com>

Subject: ant tuners, harmonics, 00s

Hello All -

In a previous message about tuning an antenna tuner on a harmonic, there was a comment about the 00s (Official Observers) being disbanded. Well, my very first QRP contact netted me two QSL cards: one from the ham I contacted and exchanged info with, AND an Official Observer. It was a friendly sort of warning about my signal being chirpy. I checked things out and sure enough, I wasn't using quite 12volts, and this made the signal chirp.

The next 00 card came about a year later, when I was portable and trying to get a station setup. It took me several seconds (read more than 5 and less than 30) to tune up with an on-air signal. The 00 card suggested I mark the ant tuner settings on a sheet of paper for future reference and to avoid long tune ups. Again, in a friendly tone. [Now you all hear those l-o-n-g tuneups out there; this is when I discovered one of the differences between the new hams and old: OTs know enough to tune, then operate a few Khz away, newbies don't!!!! 8^)]

Anyway, as far as I can tell, the 00s are still out there.

73, Gary N2JGU

From ab4el.com Thu Sep 1 03:54:38 1994
From: NYOUNG@DESIRE.WRIGHT.EDU
Subject: doing time at the bench

Pardon my bumbling ignorance of the originator of the idea that I'm bouncing off of, but one of the drops in my mail bucket mentioned that homebrewing cuts into operationg time. Hey, I'm a fine example of that. I've been more or less off the air for the past five years, and I think that I spent a few moments of each of those past five trying to home brew a 40m radio. We're not talking genius level here, either.

It was only through the help of Jim Townsend (and the fact that I gave him money for a kit) that I got the dang-nab radio fix and up and running. The NN1G kit is another example. I still don't have it straight, aand it's likely that I'll spend another 7 years trying to get it running to my satisfaction. Who said kits weren't homebrew? Not around this bat roost!

It sure makes an interesting break from Bakhtin and Vygotsky, though. Maybe even Julio Cortazar... Naw, not him. But at least Foucault and Derrida. Yeah, Derrida it definitely beats. But then, he's just a symbol on the page, like the words that

appear at the bottom of the schematic.... Parts may not be available in some countries. Hmmm.... Sounds like my kind of kit. Where's the checkbook?

Nils
WB8IJN &c

From ab4el.com Thu Sep 1 06:00:05 1994
From: Raymond.Anderson@EBay.Sun.COM (Ray Anderson)
Subject: qrp list roster (long)

Some one asked earlier today if all of the members of the qrp@think.com list have been transferred to qrp-1@netcom.com. I believe the answer is yes, however here is a list of all the members that are on the qrp-1 list for your info.

Ray WB6TPU
raymonda@uranium.ebay.sun.com
rander@netcom.com

-----qrp-1 subscriber list follows-----

>From listserv-owner@netcom.com Wed Aug 31 12:39 PDT 1994

Members of list 'qrp-1':

richard@dnd.icp.nec.com.au
DDiamond@VTRLMEL1.TRL.OZ.AU
ab268@freenet.carleton.ca
ovazquez@newton.physics.mun.ca
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Justin Rains <usr12314@tso.uc.edu>
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kellner@usa.acsys.com (Richard G. Kellner)
Gene Marshall <genem-qrp@hpswtgm.cup.hp.com>
ATXR@CENVMC.CENCOL.ON.CA
Eric Swartz <erics@cruzio.com>
markeh@netcom.com (Mark Helfen)
aq168@freenet.buffalo.edu
kiddi@marel.is (Kristinn Andersen)
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From ab4el.com Thu Sep 1 01:25:19 1994
From: "Robert E. Easton 8-862-3241" <bobea@watson.ibm.com>
Subject: qrp-digest V1 #116

Before the list dries up on think.com, let me say a BIG THANK YOU to Bruce and to Thinking Machines for keeping the list running!!!!!!!

It was only a short while ago that I tripped on to this list, but in a few

short months I've found it invaluable. What a wealth of net-friends to meet and share our hobby with. It's TERRIFIC!

THANKS Bruce, and here's hoping all works out well for you as TM makes it through these difficult times.

73, Bob - N2IPY